



Biodefense solutions  
to protect our nation



**USAMRIID**

United States Army  
Medical Research Institute  
of Infectious Diseases

A woman is wearing a blue full-body biohazard suit with a clear face shield. She is wearing green nitrile gloves and is holding a small, dark, cylindrical object. In the background, there are yellow hoses and a black piece of equipment on a red stand.

## MISSION

To conduct basic and applied research on biological threats resulting in medical solutions to protect the warfighter

## VISION

To be the nation's preeminent research laboratory providing cutting-edge medical solutions to protect the warfighter against biological threats



## GOALS

To ensure that research is conducted in a safe and secure environment

To preserve and enhance USAMRIID's ability to conduct basic and applied medical research in support of warfighter needs

To deliver competitive products to the advanced developer on schedule with the best value and quality

To promote a dynamic and intellectually stimulating environment that allows for personal and professional growth and a superior quality of life



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USAMRIID is the center of excellence for medical biodefense research in the U.S. Department of Defense (DoD).

The Institute plays a key role as the only DoD laboratory equipped to safely study highly hazardous viruses requiring maximum containment at Biosafety Level 4 (BSL-4). As an organization of the U.S. Army Medical Research and Materiel Command, USAMRIID maintains its world-class scientific and technology base while being responsive to its primary customer—the warfighter.

## SAFETY AND FACILITIES

USAMRIID provides a safe and secure environment for its workforce and the surrounding community.

The Institute's comprehensive approach emphasizes safety training, risk management, environmental surveillance and occupational health screening. Facilities are designed with special engineering controls, such as negative airflow, to keep infectious organisms contained in the laboratory. All waste streams are sterilized as they leave the facility, and air is filtered through a dedicated air handling system.





# Biodefense solutions to

## RECOGNIZED EXPERTISE

USAMRIID's military and civilian staff of approximately 800 includes microbiologists, physicians, veterinarians, pathologists, biochemists, molecular biologists, virologists, pharmacologists, and technical and administrative personnel. The Institute collaborates with the Centers for Disease Control and Prevention, the National Institutes of Health, the Department of Homeland Security, the World Health Organization, the Department of Energy, industry partners, and academic centers of excellence worldwide. USAMRIID investigators publish their research results in peer-reviewed journals, present at national and international scientific meetings, hold faculty positions, and serve on numerous scientific committees and review boards.

**Institute scientists are internationally recognized experts in their respective fields.**

USAMRIID's laboratory facilities include the following:

- 50,000 square feet of BSL-3 (containment) laboratory space
- 10,000 square feet of BSL-4 (maximum containment) laboratory space
- Fully accredited animal research facilities (BSL-2, 3, and 4)
- Aerosol testing equipment and world-class expertise in generation and characterization of biological aerosols for testing vaccines and therapeutics
- Reference laboratory maintained at forensic standards, including secured area for chain-of-custody during sample in-processing, storage, and distribution
- Fully accredited clinical laboratory (BSL-2)
- BSL-4 patient care suite for medical care of personnel potentially exposed to infectious agents in laboratory or field settings
- BSL-4 clinical laboratory



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## SUPPORT TO THE FIELD

USAMRIID maintains several rapid response teams that can deploy on short notice. Some provide training to personnel who establish diagnostic laboratories in theaters of combat operations. Others specialize in rapid response to investigate disease outbreaks worldwide and can evacuate patients under BSL-4 isolation.

The Institute provides subject matter expertise and available research reagents to local, state and federal laboratories to develop and improve systems for disease surveillance, reporting, and diagnosis. USAMRIID also conducts collaborative field studies to map the distribution of emerging diseases or test new diagnostic methods.

USAMRIID is a reference laboratory for the WHO and the CDC, helping to diagnose and treat unusual diseases wherever they occur. The Institute also serves as the DoD reference laboratory for biological threat agents and endemic infectious diseases.

Upon request, USAMRIID supports the U.S. interagency counterterrorism effort with specialized medical and scientific consultation on biological terrorism issues. The Institute lends its proven diagnostic expertise to evaluating medical and environmental samples from a wide range of customers. This includes laboratory support as well as specialized field support.

## REGULATORY REVIEW

USAMRIID's research and development program is guided by a series of scientific, clinical and regulatory reviews. All work is performed in full compliance with federal guidelines and regulations. Organizations that inspect or oversee various aspects of the USAMRIID research program include the following:

- Food and Drug Administration (FDA)
- National Institutes of Health (NIH)
- Centers for Disease Control and Prevention (CDC)
- U.S. Department of Agriculture (USDA)
- Nuclear Regulatory Commission (NRC)
- Environmental Protection Agency (EPA)
- Occupational Safety and Health Administration (OSHA)
- Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International
- College of American Pathologists (CAP)

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## LOOKING TO THE FUTURE

As the cornerstone of the National Interagency Biodefense Campus at Fort Detrick, USAMRIID will continue its collaborations with the National Institute of Allergy and Infectious Diseases, the Department of Homeland Security, and many other partners conducting research for civilian biodefense.

The new USAMRIID facility, to be located adjacent to the existing Building 1425, will expand the Institute's capacity to test products developed by its partners in biodefense research; incorporate newer technologies for developing vaccines, drugs and diagnostics; and better accommodate the workforce, which has more than doubled since the program began.

While USAMRIID's primary focus is on protecting military service members, its research has applications that benefit society as a whole. The Institute's unique science and technology base serves not only to address current threats to our armed forces, but is an essential element in the medical response to any future biological threats that may confront our nation.

FOR MORE INFORMATION

[www.usamriid.army.mil](http://www.usamriid.army.mil)